THE ROLE OF PREVAILING PRICES AND WAGES
IN THE EFFICIENT ORGANIZATION OF MARKETS

Robert E. Hall

The Role of Prevailing Prices and Wages in the Efficient
Organization of Markets

ABSTRACT

Among the ways a product or labor market might operate is the
following: All firms quote the same price or wage. Customers or
job-seekers search among sellers until they find one willing to sell
them or employ them. They do not need to consider the possibility
that another seller or employer might offer a better deal, since all
offers are identical. Under prevailing prices or wages, the small
participants in the market--customers and workers--have very limited
responsibilities for processing information. By contrast, where
markets are equilibrated by conscious search for the best price or
wage, the small participants face complex problems of gathering and
interpreting information. Adherence to pervailing prices and wages
may explain part of the macroeconomic puzzle of price and wage
stickiness and the sensitivity of real variables to nominal disturbances.

Robert E. Hall
Herbert Hoover Memorial Bldg.
Stanford University
Stanford, CA. 94305

415/497-2215

Introduction

In some markets in the modern U. S. economy, firms seem unwilling to use
variations in prices and wages to bring the   product demands or labor supplies
they face into line with the firms' marginal costs or marginal products of labor.
Instead, they make unilateral quantity adjustments by rationing output to cus-
tomers and hiring or laying off workers. Prices and wages are held passively at
levels prevailing in the relevant product and labor markets, instead of varying
as part of an active policy. Economists have tended to view this phenomenon as
an artifact of our inability to measure actual transactions prices instead of
list prices, as the outcome of implicit or explicit long-term contracts with
customers and labor, or as rule-of thumb behavior that stops short of full profit
maximization. Price and wage stickiness has well-known macroeconomic implications,
but there is intense disagreement among macroeconomists about the rationalization
of stickiness.

This paper argues that adherence to prevailing prices and wages is one of
the ways that a market can be organized efficiently. No special features of the
market beyond the mutual benefit that derives from equating the marginal costs of
sellers to the marginal benefits of buyers are needed to explain the use of
quantity adjustments rather than price adjustments by firms. The paper starts by
examining the process that brings a market into equilibrium and, specifically, asks
what role prices have or could have in that process. The focus is on a market with
many sellers of a homogeneous good, and even more buyers. Participants in the
market have a reasonably good idea of what price will hold in equilibrium. The
problem of equilibration is to spread the buyers across the sellers so as to

bring the marginal cost of each seller approximately in line with the equilibrium price. Buyers must move through some kind of search process from high-cost sellers to low-cost ones. The paper proposes a simple, reasonable search process and then shows that a free market could be organized in several different ways to bring about this process. The methods of organization differ primarily in the way that prices are used to distribute information.

One organizational principle lets low-cost sellers attract buyers by posting low prices and similarly lets high-cost ones repel buyers with high prices. Actual movements of buyers in an equilibrating direction occur at the initiative of buyers. The information-processing problem faced by buyers has been considered at great length in the literature on optimal search. Market organization based on sellers' use of prices to attract or discourage customers is the natural first thought of the economist about a good way for a market to get to equilibrium. Nonetheless, it has two serious problems: First, it is difficult to detect violations of the rule that the posted price of a seller equals marginal cost. Sellers may be tempted to raise prices above marginal cost to increase profit, but then the market will become inefficient, in that the marginal costs of sellers will not equal the marginal benefits of buyers. Second, this market organization requires sophisticated optimization and good information about the whole market on the part of large numbers of small buyers.

The key point of the paper is the availability of an alternative organizational principle that can bring about the same pattern of equilibrating movements of buyers without imposing unenforceable rules on sellers and without requiring heavy information processing by buyers. Under it, every seller posts the same price, called here the prevailing price. Buyers need not know anything about the

market. They simply visit sellers until they find one who will sell to them.

Buyers always deal with the first seller who has the product available. They

always pay the prevailing price. Sellers accept new buyers when marginal costs

are less than the prevailing price. Sellers are price-takers and make decisions

only about the quantity of output. Equilibrium is reached when quantity adjust-

ments have brought marginal cost in line with the prevailing price.

Most of the material in the paper applies equally well to the labor market,

where the roles of buyer and seller are reversed. The search theory of unemploy-

ment pictures a labor market organized in the first way: Employers use wage

variations to attract and repel workers. Consequently, the job seeker faces a

distribution of possible wages and tries consciously to get a wage in the upper

tail of the distribution. This involves turning down wage offers until a suitably

high one comes along. But organization of the labor market on the principle of

the prevailing wage is an equally good way for it to reach equilibrium, and has

a character that fits more closely with the evidence on actual labor markets.

Under a prevailing wage, job-seekers visit one employer after another until they

find an opening, which they take immediately. All jobs pay the same wage, so

there is no point in looking further. Employers equate the value of the marginal

product of labor to the wage by adjusting the level of employment. Again, the

firm is restricted by the rules of the market to unilateral quantity adjustments.

Plainly, not every market in a modern economy makes use of prevailing prices

or wages. This method of organization seems most useful in markets for reasonably

homogeneous goods or services where the agents on one side of the market are much

larger than those on the other side. The clearest sign of prevailing-price or

-wage market organization is the willingness of the buyer or worker to enter

into the first deal that is offered, without worrying about the possibility that another seller might offer a better deal. Another sign is the use of unilateral quantity adjustments not induced by or accompanied by price or wage adjustments-- sellers ration output to their customers or lay workers off, for example, in prevailing-price or prevailing-wage markets.

Under conditions of changing costs and demands, a market making use of pre- vailing prices or wages must also evolve a technique for making the price or wage respond to new conditions. The advantages of efficient equilibration under a prevailing wage could quickly be dissipated in excess unemployment, for example, if the prevailing wage is too high. A variety of methods for determining and disseminating prevailing prices and wages are discussed in the paper. From the point of view of macroeconomics, the response of prevailing prices and wages to unexpected developments, especially movements in the money stock, is of paramount interest. It may be that modern economies accept a certain degree of vulnerability of the real economy to purely nominal shocks as a cost of an otherwise efficient way to organize markets. The stickiness of wages and prices makes a little more sense in a model of prevailing prices and wages than in a standard model where agents are free to vary their own prices and wages. But it is not clear at this stage whether the apparently very long lags in the response of prices and wages in the U. S. economy can be fully rationalized in this way.

The Setting

The paper considers a market that is subject to rather stringent limitations on the exchange of information. The same limitations will be imposed for the various alternative methods for organizing the market. Specifically, there are

many buyers; a buyer cannot discover the terms offered by a particular seller except by visiting the seller, which is a costly step. Similarly, there are many sellers, who are brought into contact with buyers only by the random visits of buyers. Sellers are much larger than buyers, in the sense that the purchases of any one buyer have only an infinitesmal effect on the marginal cost of a seller. Buyers derive benefits from their purchases in a way described by a benefit schedule--the nature of the benefits depends on whether the buyers are themselves firms or final consumers.

As a general matter, the efficient organization of transactions within the market achieves a balance between the reduction in deadweight loss achieved by a narrowing of the dispersion of marginal costs and the corresponding increase in search costs. If the intensity of search is characterized by one or a few parameters, then the efficient organization of the market can be described analytically by equating the marginal improvement in allocation to marginal costs of search. Characterization of the optimal pattern of search at the most general level is an unsolved problem and is certainly not the aim of this paper. Rather, a very restricted (but sensible) class of search processes is posited at the outset. The members of the class are indexed by a single parameter measuring the intensity of search. Three forms of organization that generate patterns of search within the class are considered.

The search process works in the following way: At first, buyers are assigned to sellers at random in a trial allocation. Each seller strikes an efficient bargain with the buyers assigned to him; that is, marginal cost equals the marginal benefit for each of the buyers. In the trial allocation, some sellers have high marginal costs and others low marginal costs. Any movement of buyers from high-cost sellers to low-cost ones will improve the allocation. But purposeful

movements toward low-cost sellers is ruled out by the constraints on information.
A buyer can know that his current seller is charging too much, but does not know
the address of any specific low-cost seller. The search process has this buyer
visit another seller chosen at random from all sellers. If the new seller has
a marginal cost below some cutoff level, say K, the buyer joins the tentative
bargain with that seller. If not, he visits another seller chosen at random.

As customary in this kind of model, the process of equilibration is pic-
tured as taking place in the course of time, but the time is not really calendar
time. This is just a convenient way to describe events that actually take place
simultaneously with the completion of transactions.

It will be useful to formalize this process as follows: Let x be the frac-
tion of buyers currently in tentative bargains where marginal cost exceeds the
cutoff level, K. Let z be the fraction of sellers whose marginal costs are strict-
ly less than the cutoff level. Suppose the flow of buyers starting to look for
new sellers is λx (since the time over which the flow occurs is not really calen-
dar time, the numerical value of λ is of no consequence. Calling the process a
flow is a way to avoid having to deal with every movement at once). Now x can
change in two ways: It can decline discretely at the point where one of the sel-
lers' marginal costs reaches the cutoff point, and it can decline continuously
as buyers depart from the high-cost sellers. The latter process is one of a
constant percentage decline of x at a rate λ. Thus x evolves according to the
following kind of path:
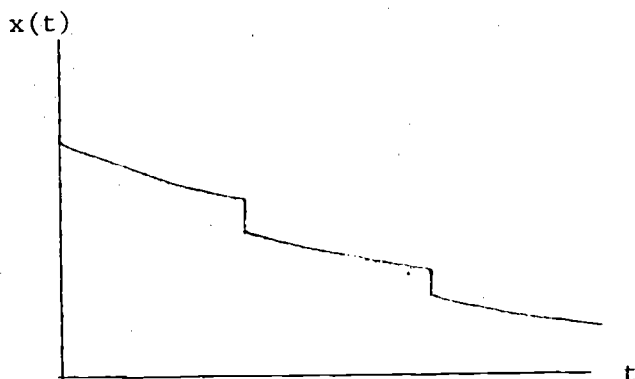
Each departing worker has a probability z of finding a low-cost seller in each visit. Thus the expected number of visits per searcher is 1/z, and the total number of visits required by the process is

$$V = \int_0^\infty \lambda x(t)/z(t)dt$$

Some comments can be made about the relation between V and the cutoff value of marginal cost, K. First, suppose K is exactly the full market-clearing price, say p*, defined as the common value of marginal cost and marginal benefit when the allocation equates them over all market participants. Then the process will evolve to a point where only a single seller has marginal cost above p* and a single seller has marginal cost below p*. Suppose this occurs at time T. Then after time T, the fraction z is just 1/N, where N is the number of sellers. The total number of visits is

$$V = \int_0^T \lambda x(t)/z(t)dt + \lambda N x(T) \int_T^\infty e^{-\lambda t}dt$$

which is finite. Thus, if the market-clearing price is known in advance, exact

clearing of the market can be achieved at finite search cost by the process
considered here.

Second, if the cutoff level K is set above the market-clearing price, p^*,
the fraction of buyers assigned to high-cost sellers, x, is always less than or
equal to its value with K = p^*, and the fraction of sellers with low costs, z,
is at least as large as it is with K = p^*, so V must be smaller with higher K.
Third, if the cutoff level is set below the market-clearing price, z will reach
zero in finite time and V can be thought of as infinity. In all, the behavior
of V considered as a function of K is

V

K

p *
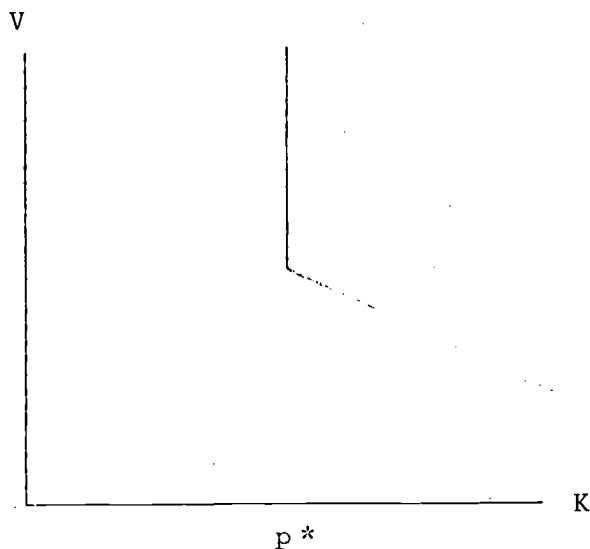
Organizing the Market to Attain the Search Process

A particular organization of the market tells how the sequence of decisions is made that directs buyers from high-cost sellers to low-cost ones. Decisions can be made cooperatively by a seller and his associated buyers, unilaterally by the seller, or unilaterally by buyers. Prices may be merely implicit in the bargains, or they may be set explicitly by one of the parties. Three alternative types of market organization will occupy the discussion here, though it will become clear that many other types could exist as well.

First, decisions can be made jointly by sellers and buyers without any explicit use of prices. In a tentative assignment of buyers to sellers, there is an implicit price associated with their tentative bargain, namely the common value of marginal cost and marginal benefit. Unless the market is in full competitive equilibrium, some sellers will have higher implicit prices than others. Everyone can be made better off if a buyer leaves a high-cost seller and joins a low-cost one. Thus the high-cost seller and his associated buyers can offer terms to one of the buyers which are generous enough to enable him to buy in to a low-cost seller and his associated buyers. Further, if the equilibrating process is expected not to continue past its efficient stopping point, the inducement can be large enough to cover the expected search costs of the emigrating buyer. In order to generate exactly the pattern of search prescribed in the previous section of the paper, the migration flow should occur at rate λ from all sellers with implicit prices above the cutoff, K, and the migrating buyer should keep looking until he finds a seller with an implicit price below K.

This search process is very different from the ones usually described in the literature on markets with imperfect information. Here, neither sellers nor buyers

view the problem as one of maximizing profit with respect to the imperfectly elastic demand or supply functions created by the need to search. The reason is simple--that kind of optimization cannot be in the joint interest of the seller and the buyers. Monopoly and monopsony power exercised in that way is always inefficient. A second feature of the cooperative market organization is the need for an extensive set of transfers to buyers as they migrate from one seller to another. Buyers acquire property rights at the time of the initial allocation of buyers to sellers, and these rights are respected as movements take place. Third, one is struck by the complexity of this form of market organization. Both sellers and buyers are involved in complicated negotiations requiring a good deal of information. Prices are not exploited as a way of concentrating information processing. It is hard to think of any existing market that resembles the hypothetical market with cooperative organization.

An alternative organization is available that resembles much more closely the way that economists think that markets work, or at least the way they _should_ work. Sellers quote explicit prices. Their quotations do not try to maximize some kind of short-run profit, but rather are simply equal to current marginal cost. Buyers search actively for the best price. They have a fixed, uniform cutoff price, K, so that they remain with their current seller if the price is below K and migrate to other sellers (at rate λ), if the current price exceeds K. Then the pattern of search will be exactly as described earlier. This behavior on the part of buyers is known to be optimal for the case where the quoted price is the actual transaction price, barring certain anomolies (Kohn and Shavell (1974) and Rothschild (1974)). In the present case, the quoted price is not the eventual transaction price, but the expected final price is a monotonic function

of the quoted price. The optimal cutoff price, K, does not depend on the dis-
persion of quoted prices, but on the dispersion of actual prices when equilibration
comes to a halt. This explains why K does not change as equilibration proceeds.

The more interesting and challenging question is the private optimality of
the behavior of sellers proposed here. This is a well-known unsolved problem in
the theory of markets with imperfect information. It is clear that if every other
seller does passively quote current marginal cost, and if buyers think every seller
is doing that, then one seller can cheat effectively by setting a price that ex-
ceeds current marginal cost. Optimization for a monopolist, after all, requires
marginal revenue to equal marginal cost, and with a downward sloping demand
function, price always exceeds marginal revenue. This kind of behavior can be
limited by elaborating the model to let sellers acquire reputations for honesty
and dishonesty, but the additional complexity is forbidding. A more general
line of argument is the following: Suppose a market evolves with a stable pat-
tern of price quotations that do not reflect marginal costs. Then that market
could be displaced by another where the sellers agree in advance to improve the
information contained in their price quotations. The new market would operate
as a whole more efficiently than the old one. This hardly settles the issue,
however. It remains an open question how the sellers in the proposed market
organization could be made to behave properly. No outsider can verify if price
equals marginal cost in a straightforward way.

The notion that the buyers search actively in product markets and that
workers search actively in labor markets is deeply embedded in existing theo-
retical work on the operation of markets with imperfect information. Clearly
there is an element of reality in that model of market organization--some buyers

do look extensively for the best price, and some workers do look for the best
wage. Yet a strong impression exists, especially among labor economists, that
much search has a very different character. The buyer or worker looks for the
first seller who has the product available or the first employer who has a job
opening, and signs up with that seller or employer. It is an unanswered criticism
of the search theory of unemployment that the evidence shows that most workers
accept the first jobs they are offered (Gordon (1973)), instead of comparing
the wages of a number of offers. Automatic acceptance makes sense only if there
is a common, prevailing price across all sellers, so that looking for a better
price is pointless.

It turns out that markets can be organized efficiently along exactly these
lines. Sellers all quote the same price. When a potential buyer arrives, he is
accepted if current marginal cost is below the prevailing price and sent to look
elsewhere if not. Further, if current marginal cost exceeds the prevailing price,
the seller sends a flow of his current buyers back into the market at rate λ.
This organization generates exactly the same pattern of search as prescribed
earlier, where the prevailing price has the role of the cutoff value of marginal
cost.

In this market organization, sellers have all the responsibilities for
gathering information and making decisions. Buyers are completely passive.
Without worrying whether a better deal is available elsewhere, they agree to buy
from the first seller who is willing to sell.[1] In addition, they accept the
seller's judgment when he tells them he can't do business after all and requires

---

[1]The point that uniformity of quoted prices lessens search costs was made by
Armen Alchian (1970).

them to incur further search costs without any compensation from the seller.
Though the prevailing-price organization is efficient, it rests very heavily
on the discipline of sellers. A seller can victimize buyers by setting a price
above the prevailing price; the buyers are not equipped to deal with that pos-
sibility. Again, as in the organization based on marginal cost pricing, a more
elaborate model could incorporate longer-run considerations to limit cheating.
And, as in marginal cost pricing, a market with good prevailing-price discipline
could displace one with an inefficient organization by operating at lower total
cost.

Further Aspects of the Prevailing-Price Market Organization

The major point of this paper is the efficiency of the prevailing-price
market organization. This section will try to draw some inferences about the
role of prevailing prices in actual markets in the contemporary U. S. economy,
rather than the abstract market considered up to this point. In actual markets,
of course, equilibration takes place in real time, and it chases a moving target.
As factor prices change and product demand rises or falls, the appropriate pre-
vailing price needs to change as well. Still, the case for a prevailing price
as an efficient way to organize a market continues to apply. Adherence to a
prevailing price seems capable of explaining some features of markets that con-
tradict the standard theory of competitive markets with perfect information.

It is known that many sellers, especially in intermediate product markets,
are deeply involved in decisions about the quantities of goods they sell to in-
dividual buyers. When a sudden burst of demand hits a paper producer, for
example, or when a strike limits its output, customers are limited in their

purchases to less than they would prefer to take at current prices. The seller does not try to discourage demand by quoting a higher price, but rather "puts its customers on allocation." The efficient solution, in this case, is for customers to move to other producers, not to pay more for the output of this producer. The market organization gives the seller the responsibility for bringing about the movement. Rationing or allocation by producers is less of a puzzle in a prevailing-price market organization than in the conventional model with perfect information. In consumer goods markets, quantity is controlled by sellers through simple availability. To control the sales of gasoline, for example, service stations simply adjust the hours when they are open.

The central obstacle to the successful operation of a prevailing-price market organization is the proper adjustment of the prevailing price to new information about costs and demand. Unilateral price movements by sellers are a violation of the implicit rules of the market unless they can be justified as a needed change in the prevailing price. In the wholesale meat market in the U. S., where large changes in the prevailing prices are needed very frequently, announcement of the current prevailing prices is a function of an independent journalistic enterprise which publishes a "yellow sheet" of prices every day. This shows that a prevailing-price market organization is not limited to cases of prices that require only infrequent adjustment. In other industries, one large seller functions as a price leader and its price is accepted as the prevailing price. Elsewhere, information about current prices is exchanged informally and there is an implicit agreement that they should move together.

All of these mechanisms might alternatively be interpreted as ways to maintain price discipline in cartels. Indeed, all the examples just given are under

investigation or prosecution as anti-trust violations in the U. S. today.[2]

But what is needed to sustain a cartel is not price discipline but quantity

discipline. Sellers facing a fixed price behave like competitors, not monopo-

lists or oligopolists. In a prevailing-price market organization that comes

about just to operate the market efficiently, output decisions are made com-

pletely unilaterally by individual sellers subject to no implicit limitations.

A market controlled by a cartel could also make use of prevailing-price organi-

zation, but there is no logical connection between the two phenomena.

In markets where the duty of declaring the prevailing price is not delegated

to a single agent, rules are likely to evolve that link price changes to easily

observed market-wide influences. In particular, prices ought to respond quickly

and fully to changes in costs affecting every producer. It is more difficult for

rules to evolve to link prices to market demand, even though demand ought to in-

fluence the prevailing price in exactly the way predicted by standard supply-and-

demand theory. Each firm observes its own demand, but the rules of the prevailing

price prohibit a price adjustment to the firm-specific component of demand, and

the firm has no good way to spearate the market and firm-specific components of

demand. A large body of empirical research supports the hypothesis of speedier

and stronger responses to costs than to demand (Gordon (1975) and Mork (1978)).

The theory of prevailing prices has some points of contact with Franco

Modigliani's (1977) explanation of price rigidity among oligopolists. Modigliani

argues that it is costly for an oligopoly to agree implicitly on a price, so the

price will not respond immediately to new conditions in the market. Of course,

---

[2]In England, a formal cartel was approved on grounds of economizing on search,
in the case of the "Black Bolt and Nut Association's Agreement." See F. M.
Scherer (1970). Dennis Carlton pointed out this reference.

he does not suggest that this feature is the outcome of efficient operation of the market.

Prevailing Wages in the Labor Market

The hypothesis that many labor markets are organized by the prevailing wage principle is harmonious with some known features of labor markets and with the criticisms by labor economists of formal models of equilibration in labor markets. First is the unilateral nature of the decisions by firms to hire and discharge workers. In many (but by no means all) labor markets, workers present themselves to employers and it is more or less taken for granted that they will accept employment if offered. Job search is not a matter of finding a wage offer from the upper tail of a distribution of offers, but rather one of waiting until the first employer says yes. This only functions when employers adhere to the prevailing wage rules, of course. On the other side, a prevailing wage organization of the labor market explains why firms lay workers off rather than cutting wages. The firm has taken on the responsibility for deciding when the marginal product of labor has fallen below the prevailing wage; when it does, some workers ought to move elsewhere. This explanation of permanent layoffs is complementary to the theory of temporary layoffs offered by Baily (1974), Azariadis (1975), and others. It should be noted that the empirical magnitude of quits indicates that not every decision about ending employment is made unilaterally by employers. But the bulk of changes in the level of employment of firms is accomplished by variations in new hires and layoffs--employment is not usually reduced by persuading workers to quit, for example.

Second is the concern for wages paid elsewhere that permeates the wage

determination process. Employers rely heavily on wage surveys when setting

their own wages, rather than on experimentation with alternative posted wages

depending on their current need or with individual negotiation of wages. The

existence of wage "contours" (Dunlop (1944)) and the notion that wages tend to

move in tandem is a central aspect of labor economists' thinking about wages.

The hypothesis that labor markets follow the prevailing wage principle may pro-

vide a rationalization for this kind of behavior of wages.

The Macroeconomic Importance of Prevailing Prices and Wages

The fact that individual markets in the economy use prevailing price or

wage organization does not by itself have important macroeconomic implications.

If prevailing prices and wages are functioning perfectly, they will keep supply

and demand in equality at all time. Under these conditions, macroeconomic fluc-

tuations would not be symptoms of disequilibrium. To put it another way, pre-

vailing prices and wages do not themselves support disequilibrium analysis of

the sort developed by Barro and Grossman (1971) and many subsequent authors.

A prevailing price is not necessarily a fixed price.

Still, markets with prevailing prices or wages are likely to be vulnerable

to unexpected shocks because prices and wages cannot respond instantly. Sellers

and employers are expected to respond to new developments with quantity adjustments--

accepting more customers, rationing output, laying workers off, or hiring new ones.

Unless prevailing prices and wages respond immediately to an economy-wide shock,

quantity responses aggregated across all producers and employers will show up as

movements in real GNP, employment and unemployment. If the shocks themselves are

essentially neutral (like unexpected changes in the money stock), then sooner or later prevailing prices and wages should adjust to the new circumstances, markets should clear again, and the aggregate real effects should subside.

This account of the real effects of nominal disturbances is only a slight variation of ones offered by Lucas (1972) and Barro (1976), where incomplete information about the nature of the disturbances makes individual suppliers respond inappropriately to a nominal shock, and by Fischer (1977), Gray (1976), and Phelps and Taylor (1977), where suppliers have contracts in which quantities but not prices or wages can respond to information that becomes available after the contracts are signed. But the prevailing price and wage model may lessen some deficiencies in these explanations of the real consequences of nominal shocks. The theory of incomplete information seems incapable of explaining the duration of the displacement of output and employment following an unexpected movement of the money stock. Evidence from Barro (1978) suggests that when the money supply makes a permanent upward shift, real GNP remains high for several years. His evidence on prices confirms their corresponding failure to respond quickly to a monetary stimulus. The length of the lag is an embarrassment within the theory of incomplete information for the following reason: In the market organization implicit in the theory, individual agents are free to take any action as soon as its profitability is apparent. In particular, there are no limitations on movements in prices. Accordingly, the lag of one or more years in the adjustment of prices after the need for the adjustment has become apparent poses a serious problem for the theory. Here the model of prevailing prices and wages may offer some help. In a market organized by a prevailing price, sellers have an implicit agreement not to adjust prices unilaterally. The force of arbitrage via price movements is blunted when prevailing-price discipline holds.

The other main line of thought about the real effects of nominal shocks, contract theory, has suffered from the start from the apparent irrationality of contracts that predetermine wages or prices and specify quantity adjustments as the only or the major accommodation to new information. The logic of the prevailing price shows why it can be efficient for quantity adjustments to be the only flexibility open to the firm. Price movements not in tandem with other firms would upset the arrangement that buyers can do business confidently with the first seller who will sell to them.

It is important to emphasize that aggregate real responses to nominal shocks are inefficient. If an economy evolved extensive prevailing price arrangements during a period of stable monetary policy and then entered a period of large monetary surprises, it would begin to modify or abandon the prevailing price organization on account of this inefficiency. Where prevailing prices are a source of inefficient fluctuations in aggregate output and employment, it is a sign, presumably, that the advantages of prevailing prices outweigh this disadvantage. Since it seems unlikely that the advantages amount to hundreds of billions of dollars in the current U.S. economy, not all of the apparent costs of recessions, which are of this magnitude, can be attributed to prevailing prices and wages. Other explanations of real fluctuations are needed to complement the one offered here.

The theory of prevailing wages and prices fits in well with current thinking about the momentum of inflation. Once inflation becomes established at a certain rate, it tends to continue at that rate unless there is a sustained change in the rate of monetary growth. In markets where prevailing prices and wages change by general agreement rather than at the initiative of a single agent, inflation will

have exactly this character. Obeying the prevailing-price rule will mean raising
prices by, say, a percent every two months or six percent at the beginning of the
selling season. Fully anticipated, built-in inflation has no important costs to
a prevailing-price market. Prevailing-price market organization thrives under
stable rates of monetary growth, but there are no special advantages of low as
against moderate rates.

Concluding Remarks

The theory of prevailing prices and wages offers an explanation for some
otherwise puzzling aspects of the operation of markets. Aggressive use of vari-
ations in prices charged and wages offered by individual firms is not necessarily
a feature of an efficient market. The use of quantity adjustments instead is not
necessarily a sign of departure from basic economic postulates. But a market
organized with prevailing prices, or indeed one organized in any of the efficient
ways described here, is one where firms must obey a set of implicit rules of the
marketplace. The unsolved problem in this line of thought is how those rules
come into being and how they are kept in operation, especially when new firms
enter the market.

References

Armen Alchian, "Information Costs, Pricing, and Resource Unemployment," in
    E. S. Phelps et al., Microeconomic Foundations of Employment and Inflation
    Theory, Norton, New York, 1970, pp. 21-52.

Costas Azariadis, "Implicit Contracts and Underemployment Equilibria," Journal
    of Political Economy, vol. 83, pp. 1183-1202.

Martin Neil Baily, "Wages and Employment under Uncertain Demand," Review of
    Economic Studies, vol. 41, pp. 37-50, January 1974.

Robert J. Barro, "Rational Expectations and the Role of Monetary Policy,"
    Journal of Monetary Economics, vol. 2, pp. 1-32, January 1976.

_____, "Unanticipated Money, Output, and the Price Level in the United
    States," Journal of Political Economy, vol. 86, pp. 549-580, August 1978.

Robert J. Barro and Herschel Grossman, "A General Disequilibrium Model of Income
    and Employment," American Economic Review, vol. 61, pp. 82-93, March 1971.

John Dunlop, The Theory of Wage Determination, MacMillan, London, 1957.

Stanley Fischer, "Wage Indexation and Macroeconomic Stability," in K. Brunner and
    A. Meltzer (eds.) Stabilization of the Domestic and International Economy,
    Carnegie-Rochester Series on Public Policy, vol. 5, North-Holland, 1977, pp. 107-
    147.

Robert J. Gordon, "The Welfare Costs of Higher Unemployment," Brookings Papers on
    Economic Activity 1:1973, pp. 133-195.

_____, "The Impact of Aggregate Demand on Prices," Brookings Papers on
    Economic Activity 3:1975, pp. 613-662.

Jo Anna Gray, "Wage Indexation: A Macroeconomic Approach," Journal of Monetary
    Economics, vol. 2, pp. 221-236, April 1976.

Meir Kohn and Steven Shavell, "The Theory of Search," Journal of Economic Theory,
    vol. 9, pp. 93-123, October 1974.

Robert E. Lucas, Jr., "Expectations and the Neutrality of Money," Journal of
    Economic Theory, vol. 4, pp. 103-124, April 1972.

Franco Modigliani, "The Monetarist Controversy, or, Should We Forsake Stabilization
    Policies?" American Economic Review, vol. 67, pp. 1-19, March 1977.

Knut Mork, "Why are Prices So Rigid?" Working Paper 89-002, MIT Energy Laboratory,
    February 1978.

Edmund S. Phelps and John B. Taylor, "Stabilizing Powers of Monetary Policy under
    Rational Expectations," Journal of Political Economy, vol. 85, pp. 163-190,
    February 1977.

Michael Rothschild, "Searching for the Lowest Price When the Distribution of Prices is Unknown," Journal of Political Economy, vol. 82, pp. 689-711, July-August 1974.

F. M. Scherer, Industrial Market Structure and Economic Performance, Rand McNally, Chicago, 1970.